**DOCKET NO.:** MSFT-0174/150793.1

Application No.: 09/557,250

Office Action Dated: August 4, 2003

This listing of claims replaces all prior versions, and listings, of claims in the application.

## **Listing of Claims:**

1. (original) A method for utilizing application dependency information to efficiently perform a backup service operation in a computer system, comprising the acts of:

registering applications loaded in said computer system with an application dependency application programming interface (API) for communications of application dependency information among applications, a common software agent, a storage component utilized by said agent and a backup service;

storing in said storage component at least one application's dependency information; and communicating said application dependency information from said storage component to said backup service.

- 2. (original) A method as recited in claim 1, wherein said backup service includes a snapshot service.
- 3. (original) A method as recited in claim 1, wherein said backup service includes a determination of an application freeze order.
- 4. (original) A method as recited in claim 3, wherein said backup service includes an execution of the freezing of applications in the order reflected by the determined application freeze order.
- 5. (original) A method as recited in claim 1, further comprising the act of loading said application dependency application programming interface (API) into said computer system.
- 6. (original) A method as recited in claim 1, further comprising the act of said backup service requesting a set of application dependency information from a common software agent for use in connection with the restore operation.

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7. (original) A method as recited in claim 6, wherein said set of application dependency information is the minimum set of information from said storage component for successfully completing the restore operation.

- 8. (original) A method as recited in claim 6, further comprising the act of said agent issuing a request to at least one registered application for information from said set of application dependency information requested by the service.
- 9. (original) A method as recited in claim 1, further comprising the act of at least one registered application communicating information to said agent in response to a request by said agent, said information relating to said at least one application's external dependencies.
- 10. (original) A method as recited in claim 1, further comprising the act of unregistering an application.
- 11. (original) A method as recited in claim 1, wherein said API protocol is XML protocol.
- 12. (original) A method as recited in claim 1, wherein said agent stores said application dependency information in a tabular format reflective of hierarchical application dependencies in said storage component.
- 13. (original) A computer-readable medium having computer-executable instructions for instructing a client computer to perform the acts recited in claim 1.
- 14. (currently amended) A data structure for storing application dependency information embodied in computer readable media having computer executable instructions, comprising:





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an identifier identifying an application, for which application at least one external dependency is known and

data representative of said at least one external dependency, whereby said data structure is at least one of an input of a recovery process and an ouput of a backup process.

- 15. (original) A data structure according to claim 14, wherein said data representative of said at least one external dependency is stored in XML format.
- 16. (currently amended) An application programming interface (API) embodied in a computer readable media having computer executable instructions for use in a computer system, wherein said API protocol enables an agent to collect, store and package application dependency information about dependencies among applications in response to a request by a service, and thereafter delivers said application dependency information to said service for further processing by said service.
- 17. (original) An API as recited in claim 16, wherein the service to which said agent delivers said information is a backup service.
- 18. (original) An API as recited in claim 16, wherein said service includes a snapshot service.
- 19. (original) An API as recited in claim 16, wherein said service includes a determination of an application freeze order.
- 20. (original) An API as recited in claim 16, wherein said agent stores said application dependency information in a tabular format reflective of hierarchical application dependencies in a storage component.



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21. (original) An application programming interface (API) for communications of application dependency information relating to applications in a computer system according to the data structure of claim 14.

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22. (currently amended) A computer system, comprising:

a plurality of applications loaded in said system, wherein at least one application has at least one external data dependency associated therewith;

a storage component for storing application dependency information;

an agent that functions according to communication protocols of an application programming interface (API) in said system for processing application dependency information, wherein said application dependency information includes information about dependencies among applications executing on the system, communicated to said API from said agent and for storing the application dependency information in said storage component; and

a service for making requests to said agent for a set of application dependency information, wherein said agent collects, stores and packages said application dependency information in response to a request by a service, and delivers said set of application dependency information to said service for further processing by said service.

- 23. (original) A computer system as recited in claim 22, wherein the service to which said agent delivers said information is a backup service.
- 24. (original) A computer system as recited in claim 22, wherein said service includes a snapshot service.
- 25. (original) A computer system as recited in claim 22, wherein said service includes a determination of an application freeze order.



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26. (original) A computer system as recited in claim 22, wherein said agent stores said application dependency information in a tabular format reflective of hierarchical application dependencies in a storage component.

27. (original) A method as recited in claim 22, wherein said set of application dependency information is the minimum set of information from said storage component for successfully completing the service.